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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,258	01/23/2002	Sarah Barber	01CR048/KE	6742

7590 02/07/2005

Rockwell Collins, Inc.  
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Cedar Rapids, IA 52498

EXAMINER
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CHUONG, TRUC T

ART UNIT	PAPER NUMBER
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2179

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/055,258

Applicant(s)

BARBER ET AL.

Examiner

Truc T Chuong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham et al. (U.S. Patent No. 4,811,230) in view of D'Hooge et al. (U.S. Patent No. 6,636,354 B1).

As to claim 1, Graham teaches a method of selecting, displaying, and reconfiguring display configurations on an avionics display in an avionics system on an aircraft for different phases of flight of the aircraft comprising the steps of:

selecting a prestored climb display configuration for display on the avionics display with a climb quick access pushbutton on a cursor control panel when the aircraft is in a climb phase of flight (pushing control knob to change the altitude of the airplane, e.g., col. 3 lines 21-30, col. 9 line 60-col. 10 line 39);

reconfiguring the prestored climb display configuration into a new climb display configuration with controls on the cursor control panel and on the avionics display (e.g., col. 10 lines 3-53);

selecting a prestored cruise display configuration for display on the avionics display with a cruise quick access pushbutton on the cursor control panel when the aircraft changes to a cruise phase of flight (e.g., col. 10 lines 1-53, and col. 11 lines 1-22); and

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selecting a prestored descend display configuration for display on the avionics display with a descend quick access pushbutton on the cursor control panel when the aircraft changes to a descend phase of flight (e.g., col. 10 lines 1-53, col. 11 lines 1-22, and col. 14 lines 48-61);

although, Graham teaches pressing the climb quick access pushbutton for storing the new configuration (e.g., col. 10 lines 40-53), Graham does not clearly show that pressing a pushbutton for a period of time. D'Hooge clearly shows that the user may press and hold the switch button for an extended period of time to indicate that the feature is desired (e.g., col. 9 line 66-col. 10 line 3). It would have been obvious at the time of the invention, a person with ordinary skill in the art would want to have the pressing button for a period of time of D'Hooge in the Flight Management System of Graham to ease the user to distinguish between a normal or a desired selection which the user really wants to operate.

As to claim 2, Graham teaches the method of claim 1 further comprising the steps of: reconfiguring the prestored cruise display configuration into a new cruise display configuration with controls on the cursor control panel and the avionics display (e.g., col. 10 lines 1-53, col. 11 lines 1-22, and col. 14 lines 48-61); and

pressing the cruise quick access pushbutton for a period of time to store the new cruise display configuration (e.g., col. 10 lines 1-53, col. 11 lines 1-22).

As to claim 3, Graham in view of D'Hooge teaches the method of claim 1 further comprising the steps of:

reconfiguring the prestored descend display configuration into a new descend display configuration with controls on the cursor control panel and the avionics display (e.g., col. 14 lines 48-61); and

pressing the descend quick access pushbutton for a period of time to store the new descend display configuration (e.g., col. 10 lines 1-53, col. 11 lines 1-22, and col. 14 lines 48-61).

As to claim 4, Graham teaches the method of claim 1 further comprising the steps of selecting the new climb display configuration on the avionics display with the climb quick access pushbutton on the cursor control panel (e.g., col. 3 lines 21-30, col. 9 line 60-col. 10 line 39).

As to claim 5, Graham in view of D'Hooze teaches a method of selecting, displaying, and reconfiguring display configurations on an avionics display in an avionics system on an aircraft for different phases of flight of the aircraft comprising the steps of:

selecting prestored display configurations for display on the avionics display with quick access pushbuttons on a cursor control panel in accordance with the aircraft phase of flight (e.g., col. 3 lines 21-30, col. 9 line 60-col. 10 line 39);

reconfiguring the prestored display configurations into new display configurations with controls on the cursor control panel and the avionics display (e.g., col. 3 lines 21-30); and

pressing the climb quick access pushbutton for a period of time to store the new climb display configuration (e.g., col. 10 lines 1-53, col. 11 lines 1-22, and col. 14 lines 48-61).

As to claim 6, Graham teaches the method of claim 5 for selecting, displaying, and reconfiguring avionics display configurations in an avionics system wherein the step of selecting prestored display configurations on the avionics display with quick access pushbuttons further comprising the steps of:

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selecting a prestored climb display configuration for display on the avionics display with a climb quick access pushbutton on the cursor control panel when the aircraft is in a climb phase of flight (e.g., col. 3 lines 21-30, col. 9 line 60-col. 10 line 39);

selecting a prestored cruise display configuration for display on the avionics display with a cruise quick access pushbutton on the cursor control panel when the aircraft changes to a cruise phase of flight; and selecting a prestored descend display configuration for display on the avionics display with a descend quick access pushbutton on the cursor control panel when the aircraft changes to a descend phase of flight (e.g., col. 10 lines 1-53, col. 11 lines 1-22, and col. 14 lines 48-61).

As to claim 8, Graham teaches an avionics system having displays with display configurations pilot-selected for a phase of flight of an aircraft and reconfigurable for each phase of flight comprising:

a flight display for storing and displaying stored phase of flight display configurations for each phase of flight of the aircraft (e.g., col. 6 line 66-col. 7 line 37); and

a cursor control panel connected to the flight display for changing from one stored phase of flight display configuration to another stored phase of flight display configuration when selected by the pilot for a phase of flight and for reconfiguring the display configuration for each phase of flight (e.g., col. 6 line 66-col. 7 line 37, and col. 3 lines 21-30, col. 9 line 60-col. 10 line 39).

3. Claims 7, and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham et al. (U.S. Patent No. 4,811,230) in view of D'Hooge et al. (U.S. Patent No. 6,636,354 B1), and further in view of Briffe et al. (U.S. Patent No. 6,112,141).

As to claim 7, the modified of Graham in view of D'Hooge teaches the method of claim 6 wherein each of the steps of selecting the climb phase of flight configuration, the cruise phase of flight configuration, and descend phase of flight configuration are selected (e.g. col. 10 lines 3-55); however, Graham in view of D'Hooge does not show a middle window display configuration from the group consisting of a checklist index, a flight management system text, and a vertical terrain profile and a lower window display configuration from the group consisting of a present position, plan, datalink, charts, traffic, and maintenance formats. Briffe clearly teaches the in fig. 21 that the middle window 556 shows the checklist such as NORM, WET, DRY, etc. and the lower window 552 shows position at 18000 FT. It would have been obvious at the time of the invention, a person with ordinary skill in the art would like to add the layout window of Briffe in the modified Flight Management of Graham to improve visibility for the pilot.

As to claim 9, the modified system of Graham in view of Briffe teaches the avionics system of claim 8 wherein the flight display further comprises:

a middle window for displaying a pilot-selectable display configuration; a lower window for displaying a pilot-selectable display configuration; and line select keys for selecting the middle window and lower window display configuration (figs. 2-3, 6-7, e.g., col. 10 lines 1-53, col. 11 lines 1-22, and Briffe, fig. 21).

As to claim 10, Graham teaches the avionics system of claim 9 wherein the cursor control panel further comprises phase of flight quick access pushbuttons for selecting a stored phase of flight configuration and for reconfiguring a stored phase of flight configuration into a new phase of flight configuration by selecting the new configuration with controls on the cursor control

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panel and pressing a phase of flight quick access pushbutton for a predetermined time to store the new configuration (col. 10 lines 1-53, col. 11 lines 1-22, and col. 14 lines 48-61).

As to claim 11, Graham teaches the avionics system of claim 10 wherein the cursor control panel further comprises:

a climb quick access pushbutton for selecting a climb phase of flight display configuration and for reconfiguring the climb phase of flight display configuration (e.g., col. 3 lines 21-30, col. 9 line 60-col. 10 line 39);

a cruise quick access pushbutton for selecting a cruise phase of flight display configuration and for reconfiguring the cruise phrase of flight display configuration; and a descend quick access pushbutton for selecting a descend phase of flight display configuration and for reconfiguring the descend phase of flight display configuration (e.g., col. 10 lines 1-53, col. 11 lines 1-22, and col. 14 lines 48-61).

As to claims 12-14, they can be rejected under similar rationale as claim 7. Note the rejection of claim 7 above.

### ***Conclusion***

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Archung (U.S. Patent No. 5,100,082) teaches control panel, autopilot, and cruising, and reprogramming (cols. 4-16 and figs. 3-4).

Briffe et al. (U.S. Patent No. 6,057,786) teach autopilot, panel, and altitude, speed (cols. 2-10 and figs. 1, 3 & 5).



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Gibbs et al. (U.S. Patent No. 6,547,796 B1) teach autopilot, cruising, control panel, and changing altitude (cols. 2-10 and figs. 1-10).

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T Chuong whose telephone number is 571-272-4134. The examiner can normally be reached on M-Th and alternate Fridays 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Truc T. Chuong

01/22/05

  
BAHUYNH  
PRIMARY EXAMINER